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REPLY BRIEF Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10/061,800
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	Attorney Docket No.	10010464-1
	Filing Date	January 30, 2002
	First Named Inventor	Svetlana V. Shchegrova
	Examiner	Mark Lance Shibuya
	Group Art	1639
	Title: <i>Error Correction In Array Fabrication</i>	

Sir:

This Reply Brief is filed in response to the Examiner's Answer mailed by the Office on May 12, 2008.

The Commissioner is hereby authorized to charge any fees or provide any relief that may be required, and the Appellants hereby petition for such relief, including extensions of time, and authorize the Commissioner to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.21 which may be required by this paper, or to credit any overpayment, to deposit account number 50-1078, reference no. 10010464-1.

REPLY BRIEF

In this Reply Brief, the Appellants address several issues raised in the Examiner's Answer. The Appellants note that all arguments presented in the prior Appeal Brief still apply with equal force, but are not reiterated here solely in the interest of brevity and for the convenience of the Board.

Appellants address specific assertions made by the Examiner in responding to Appellants' arguments. The Examiner's assertions are addressed in four sections below, each section representing a separate rejection why the outstanding rejection should be reversed.

I. Claims 1-33 and 49-53 are not indefinite under 35 U.S.C. §112, second paragraph.

On pages 3-4 of the Examiner's Answer, the Examiner asserts that the phrase "wherein the non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops in the pattern fro the selected path" in step d) is indefinite.

In the Appeal Brief, the Appellants argue that, when read in context, the plain meaning of the claim language in step d) of independent Claims 1, 6, and 25 is not indefinite. Claim 1 is reproduced below for convenience.

1. A method of fabricating a chemical array using:
 - a head system with multiple groups of drop dispensers;
 - a transport system to move the head system with respect to a substrate;
 - a processor to dispense droplets from dispensers during operation of the transport system in a pattern along a selected path for each group;
 - the method comprising:
 - a) loading the dispensers with fluid such that each dispenser group has at least one set of redundant dispensers loaded with a same fluid;
 - b) dispensing drops from the dispensers to identify an error in one or more dispensers;
 - c) moving a first dispenser of each of the at least one set of redundant dispensers in each group along the selected path for

that group while dispensing drops from non-error first dispensers of the sets in at least part of the pattern along the selected path for each group;

d) moving a second dispenser of each of the at least one set of redundant dispensers in each group along the selected path for that group while dispensing drops from a non-error second dispenser of a set having an identified error first dispenser in at least part of the pattern for the selected path of that group, wherein the non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops in the pattern for the selected path; and

e) repeating (a) through (d) at least once; wherein the array is fabricated.

The Examiner continues to allege that the limitation in step d) encompasses an alternative interpretation, where “dispensing of drops by the non-error second dispenser [avoids] any droplets resulting from a ‘soft nozzle failure’ [...] during firing of the identified error first dispenser.”

This alternative interpretation would require that an identified error first dispenser is employed to dispense drops during the claimed fabrication method. However, this interpretation runs contrary to other limitations in the claim. Specifically, step c) which recites “moving a first dispenser [...] while dispensing drops from non-error first dispensers.” As is clear from step c), drops are dispensed from non-error first dispensers, not from error dispensers. Indeed, once an error dispenser is identified (e.g., in step b of Claim 1) it is not employed to dispense drops during the fabrication process. In other words, apart from the step of identifying error dispensers, identified error dispensers do not deposit drops anywhere on the substrate during fabrication.

The Examiner further reiterates that “included among these limitations is the language that is, itself, the subject of the rejection under 35 U.S.C. §112, second paragraph” (page 14, last paragraph of the Examiner’s Answer).

The Appellants submit that claims must be interpreted at least in the context of other limitations in the respective claims and that claims should not be construed to render it nonsensical.¹ Moreover, it is unreasonable to assert that one of skilled in

¹ *Phillips v. AWH Corp.* 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005); *Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.*, 2007-1223 (Fed. Cir. 3/31/2008) (Fed. Cir., 2008)

the art would misconstrue the plain meaning of a limitation in step d) to be contradictory to another limitation in step c) in the same claim.

As such, in view of the established case law and the plain meaning of the limitation at issue when read in view of the entire claim, Appellants contend that the phrase “wherein the non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops in the pattern for the selected path” is not indefinite and that this rejection should be reversed.

II. Claims 1-33 and 49-53 do not fail to comply with the written description requirement under 35 U.S.C. §112, first paragraph.

The Examiner further asserts that the claims encompass methods involving “soft nozzle failure” during firing of the identified error first dispenser and because the specification does not describe such a method, the claims allegedly encompass new matter.

Here again, the Examiner reiterates the argument that the rejected claims encompass the alternative interpretation discussed above. As argued above and in the Appeal Brief, the claims and the specification clearly describe not using identified error dispensers to dispense drops while fabricating a chemical array. Indeed, identified error dispensers are not used at all. Therefore, there are no droplets resulting from a ‘soft-nozzle failure’ to be avoided by the non-error second dispenser as alleged by the Examiner. The Examiner’s alternative interpretation to read the claims to encompass firing of the identified error first dispenser (thus producing “soft-nozzle failures”) is inconsistent with the plain meaning of the claims when taken as a whole, and thus is inconsistent with established case law regarding claim interpretation.

Therefore, the Appellants submit that when read in light of the claims as a whole, the claim limitation at issue cannot encompass the Examiner’s “alternative” interpretation. Therefore, Appellants submit that the claimed invention finds full written description support in the specification. Appellants thus respectfully request that this rejection be reversed.

III. Kumar fails to anticipate the claimed invention under 35 U.S.C. §102(a,e).

In the Appeal Brief, the Appellants state that Kumar does not disclose a method in which “non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops.” As such, Kumar cannot anticipate the rejected claims.

On page 17 of the Examiner’s Answer, referring to Table II in Kumar, the Examiner asserts that dispenser 146 is identified as an error dispenser and “the drops that the non-error dispenser 50 dispenses, are only located where the identified error dispenser did not dispense any drops.”

The Appellants first contend that Kumar does not have first and second redundant dispensers, as required by the rejected claims. Secondly, contrary to the Examiner’s assertion, even if dispenser 50 is taken to be a non-error second dispenser, it dispenses drops in locations in addition to where an identified error dispenser did not deposit a drop. As seen in the table below, dispenser 50 dispenses at its own “normal locations” (i.e., in columns 1, 5 and 9 during Pass 2: unbolded 2s in Row 2, boxed below for emphasis) in addition to where “error” dispenser 146 does not (i.e., in columns 3, 7 and 11 during Pass 2: bolded 2s in Row 2).

TABLE II

MODIFIED PRINTMASK

Row Number On the Printed	Pass Number in Which the First 12 Columns in the	Nozzle Number Used to Print in Passes 1 Through 4 for the Identified Row			
		Pass 1	Pass 2	Pass 3	Pass 4
Media	Row Are Printed				
Row 1	123412341234	1	49	97	145
Row 2	232123212321	2	50	98	Not Used
Row 3	341234123412	3	51	99	147
Row 4	412341234123	4	52	100	148
* * *	* * *	* * *	* * *	* * *	* * *
Row 48	* * *	48	96	144	192

In view of the above, the Appellants submit that Kumar does not disclose all the elements of the rejected claims. Reversal of this rejection is respectfully requested.

IV. Kumar and MacBeath fail to render the claimed invention obvious under 35 U.S.C. §103(a).

As noted above, the Appellants submit that Kumar fails to at least teach the claim limitation that “the non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops.” Since MacBeath is cited merely for its teaching of biopolymeric arrays, it fails to remedy the deficiency of Kumar.

Here again, the Examiner reiterates the example of dispenser 50 in Kumar as allegedly teaching the claim limitation at issue. However, as discussed above, dispenser 50 dispenses in locations other than where an identified error dispenser did not deposit a drop. This is different from what is recited in the rejected claims, where “non-error second dispenser dispenses drops only where the identified error first dispenser did not dispense drops.”

As such, Appellants contend that Kumar, alone or in combination with McBeath, fails to render the rejected claims unpatentable and that this rejection should be reversed.

CONCLUSION

The Appellants respectfully request that the rejections of Claims 1-33 and 49-53 under 35 U.S.C. §112, second paragraph; §112, first paragraph; §102 (a,e); and §103 (a) be reversed, and that the application be remanded to the Examiner with instructions to issue a Notice of Allowance.

Respectfully submitted,

Date: July 9, 2008

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